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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,901	03/30/2001	Hsin-Mao Hsieh		4438

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EXAMINER

CUEVAS, PEDRO J

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 04/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,901

Applicant(s)

HSIEH, HSIN-MAO

Examiner

Pedro J. Cuevas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 4,675,591 to Pleiss in view of U.S. Patent No. 6,087,592 to Nagel et al.

Pleiss discloses a dual wire stator coil (9) for a motor (Fig. 1), the dual wire stator coil (9) having at least two wires (10, 11) co-axially wound together, each one of the wires having opposite first and second ends (12, 13, 14, and 15) extending out from the dual wire stator coil, wherein the at least two wires have their first and second ends connected in series, or in parallel (claim 8) and the stator coil is formed as a uni-coil winding.

However, it fails to disclose enameled wires.

Nagel et al. teaches the construction of an enameled wire (Fig. 1) for the purpose of having a wire that holds the turns of wound wire in contact with each other and provides excellent external protection of the finished winding.

It would have been obvious to one skilled in the art at the time the invention was made to use the enameled wire disclosed by Nagel et al. on the stator coil disclosed by Pleiss for the purpose of having a wire that holds the turns of wound wire in contact with each other and provides excellent external protection of the finished stator coil winding.

3. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,675,591 to Pleiss in view of U.S. Patent No. 6,087,592 to Nagel et al. as applied to claims 1, 2 and 5 above, and further in view of U.S. Patent No. 4,849,695 to Muller et al.

Pleiss in view of Nagel et al. discloses the construction of a dual wire stator coil as described above.

However, they fail to disclose a dual wire stator coil, wherein two terminal ends of the dual wire stator coil are respectively adapted to be connected with two output ends of a drive IC, which outputs alternating current at terminal ends of the dual wire stator coil.

Muller et al. teaches the use of an IC coil driver (71), wherein two terminal ends of the coil (72) are respectively adapted to be connected with two output ends of a drive IC (71), which outputs alternating current at terminal ends of the coil (72) for the purpose of energizing a flat coil (72).

It would have been obvious to one skilled in the art at the time the invention was made to use an IC coil driver disclosed by Muller et al. on the stator coil disclosed by Pleiss in view of Nagel et al. for the purpose of energizing the coil.

4. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,675,591 to Pleiss in view of U.S. Patent No. 6,087,592 to Nagel et al. as applied to claims 1, 2 and 5 above, further in view of U.S. Patent No. 4,849,695 to Muller et al. as applied to claims 3 and 6 above, and further in view of common knowledge in the art.

Pleiss in view of Nagel et al., further in view of Muller et al. discloses the claimed invention except for the use of a TA7291P/S bridge driver as the drive IC.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use of a TA7291P/S bridge driver as the drive IC, since it was known in the art that any IC with the disclosed characteristics, true value table and electrical properties is equally capable of performing the same function.

Response to Arguments

5. Applicant's arguments filed January 31, 2002 have been fully considered but they are not persuasive.

6. In response to applicant's argument that neither Pleiss nor Nagel et al. disclose the dual wire stator as defined in claims 1, 3 and 8-10 as amended, it must be noted that the encoded terminal ends of the conductors can be connected in series, in parallel or even in any combination of the previous, with any conductor of any coil of the motor.

7. In response to applicant's argument that the wires disclosed by Nagel et al. has an "overcoat", it must be noted that this "overcoat" is in fact an "enamel overcoat" or as defined by The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company:

enamel - a vitreous, usually opaque, protective or decorative coating baked on metal, glass or ceramic ware

overcoat - an additional, protective coating.

8. In response to applicant's argument that the ends are not connected, as is the case with the present invention, it must be noted that the terminal ends of the coil conductors must be connected if the motor is to be used.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Néstor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
April 3, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800